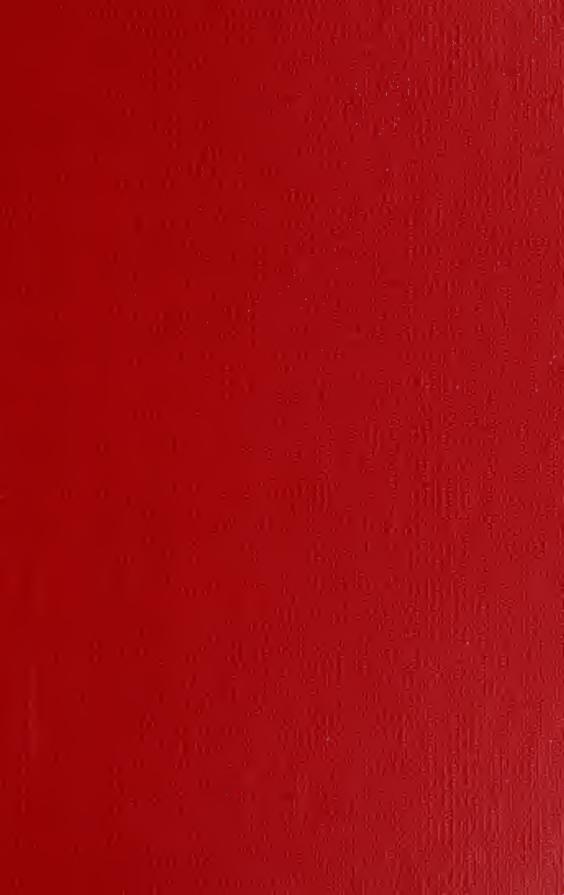
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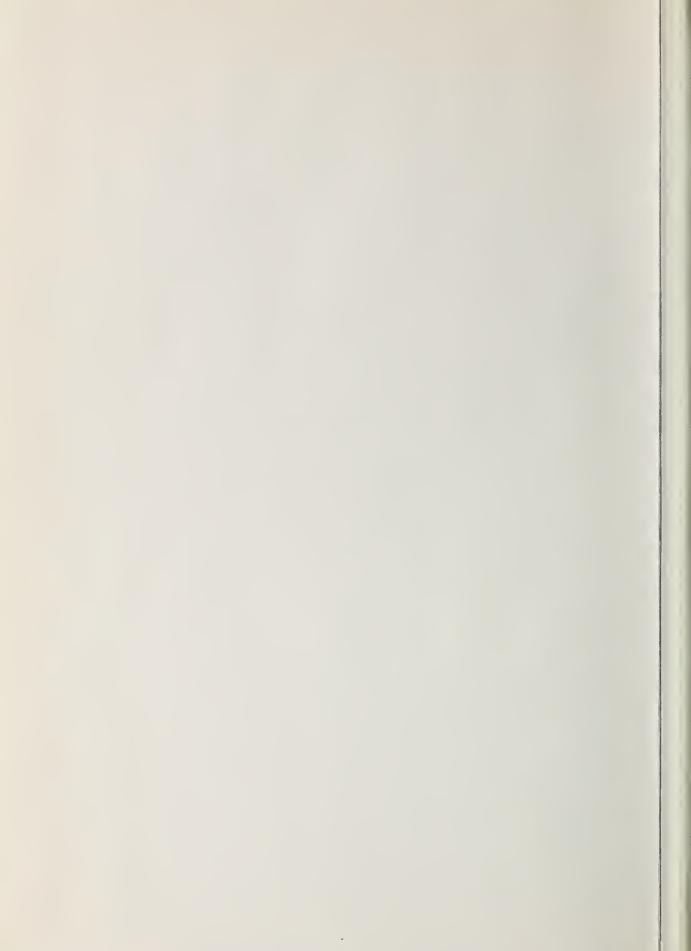


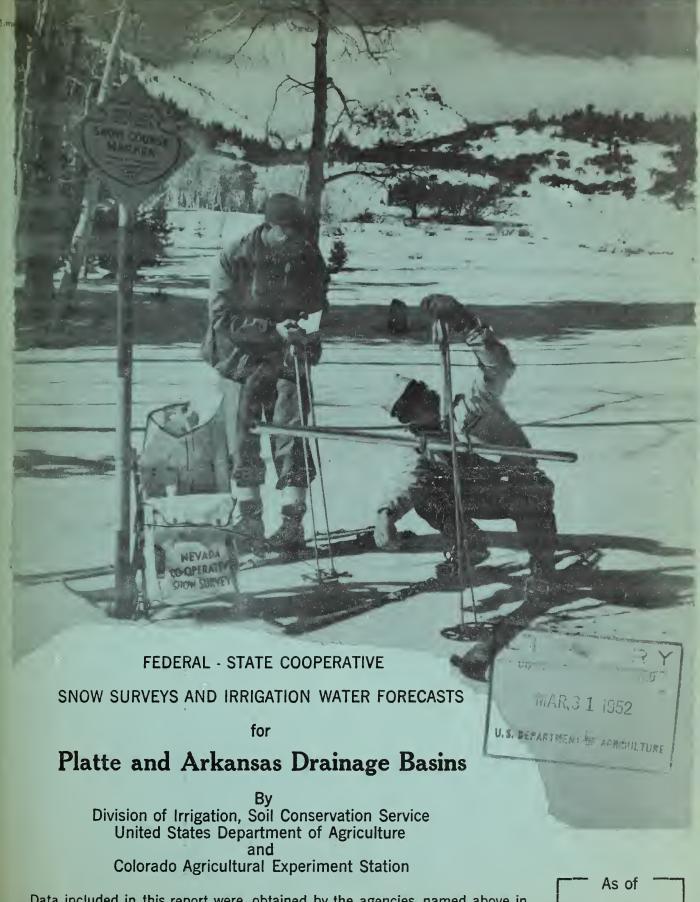












Data included in this report were obtained by the agencies named above in cooperation with the U. S. Forest Service, National Park Service, State Engineers of Colorado, Wyoming and New Mexico and other Federal, State and local organizations.

FEB. 1, 1952

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION
WATER SUPPLY FORECASTS

FOR

PLATTE-ARKANSAS RIVER BASINS

February 1, 1952

Report Prepared

bу

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Division of Irrigation Soil Conservation Service Colorado Experiment Station Fort Collins, Colorado

General Series Paper No. 508 Colorado Agricultural Experiment Station

And Annual Control (No. 2014)

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WATER SUPPLY OUTLOOK PLATTE-ARKANSAS DRAINAGE BASIN FEBRUARY 1, 1952

Snow accumulation to February 1 was above normal on this watershed. On the South Platte and its tributaries snow in the high mountain areas ranges from 150 percent of normal on the Poudre to over 200 percent on the South Platte above Denver. On the Arkansas River watershed. over 200 percent of normal snow cover was measured. It is nearly 300 percent in some locations on the southern tributaries. Except for a few courses on the Laramie River side of the Snowy Range in Wyoming the February 1, 1952 snow measurements equal or exceed any previous measurement for this date. Because only a little over onehalf of the snow accumulation period has passed, unusually high summer stream flow is not certain as of this date. However, the irrigation water supply may be expected to be above normal. Valley soil moisture conditions are reported as good on the South Platte but fair to poor in the North Platte and Arkansas.

CHEYENNE RIVER

Snow cover in the Black Hills of South Dakota is well above normal and much above a year ago on this date. Precipitation in valley areas near the mountains has been deficient for the past few months and soil moisture conditions are reported as fair. Stream flow is below normal. Storage in Belle Fourche reservoir is 72,000 acre-feet as compared to 75,000 on February 1, 1951. Total storage in the new Angostura Reservoir is 120,000 acre-feet.

NORTH PLATTE RIVER

On the mountains southwest of Lander on the Sweetwater drainage the snow accumulation to date is 150 percent of normal. On the North Platte drainage the courses along the Continental Divide are at a record high for February 1. Somewhat less snow in respect to normal has occurred along the Snowy Range divide between the Platte and Laramie Rivers. The overall average of snow on the North Platte watershed is 170 percent of normal. Soil moisture conditions are reported as good in the upper valley in Colorado and Wyoming and in western Nebraska and fair to poor in eastern Wyoming. Adequate irrigation water is assured below the major reservoirs in Wyoming because of heavy stream flow the past three years. As of thi date it would appear that these reservoirs will fill during this year. Total storage in these reservoirs is now 1,600,000 acre-feet as compared to 1,631,000 on February 1, 1951. In Kingsley and Sutherland reservoirs in Nebraska the total storage is 1,943,000 acre-feet. A year ago the total storage was 1,826,000 acre-feet.

On the Laramie River the snow cover is slightly less than for the North Platte but is high at 150 percent of normal as of February 1. In the Laramie peaks area snow is reported as relatively light. Soil moisture conditions in the Wheatland area are described as dry. Storage in Wheatland Reservoir is now 58,000 acre-feet as compared to 36,000 on February 1, 1951.

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A CONTROL OF THE SERVICE OF THE SERV

SOUTH PLATTE RIVER

The irrigation water supply outlook for the South Platte and its tributaries is well above average for this date. In respect to average the snow cover for the tributaries is 150 percent for the Poudre; 170 percent for the Thompson; 190 percent for the St. Vrain and Boulder Creek; 200 percent for Clear Creek and 210 percent for the South Platte above Denver. There is no snow in the foothills or valley areas as of February 1. However, precipitation over the winter months to date has left the soil in good condition as far as soil moisture is concerned. It should be noted that only about one-half of the seasonal snow fall occurs before February 1 in an average year. Current heavy snow in respect to normal does not necessarily assure an unusually heavy snow melt season runoff. However, a favorable water supply situation may be expected. Storage in irrigation reservoirs is well above last year and generally above the past tenyear average. Stream flow is about normal on the tributaries near the mountains and well above normal on the lower South Platte.

ARKANSAS RIVER

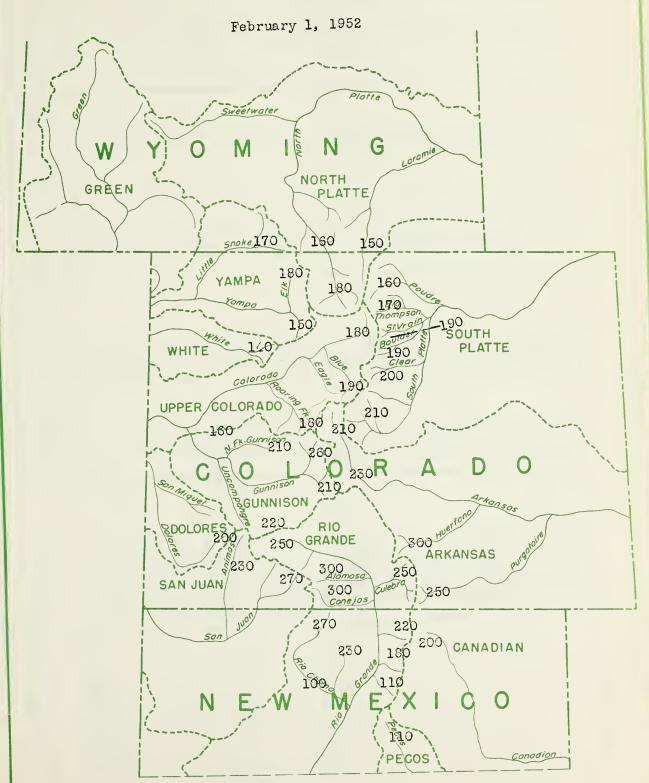
Snow accumulation to date on the main stem on the Arkansas River and its southern tributaries is extremely high. All courses have a record snow cover for February 1 and many measurements equal or exceed any previous measurement, even at the end of the snow accumulation season. Snow melt season runoff will be well above average. However, snow on the ground is very limited east of the Sangre de Cristo range and on the front range on the headwaters of Fountain Creek. Soil moisture conditions are described as very dry at valley elevations below Pueblo. Irrigation water storage is generally below normal except for Two Buttes and reservoirs above Salida.

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WATER CONTENT OF SNOW ON THE WATERSHEDS OF PLATTE, ARKANSAS, UPPER COLORADO AND RIO GRANDE BASINS BASED ON SNOW SURVEYS MADE APPROXIMATELY FIRST DAY OF MONTH

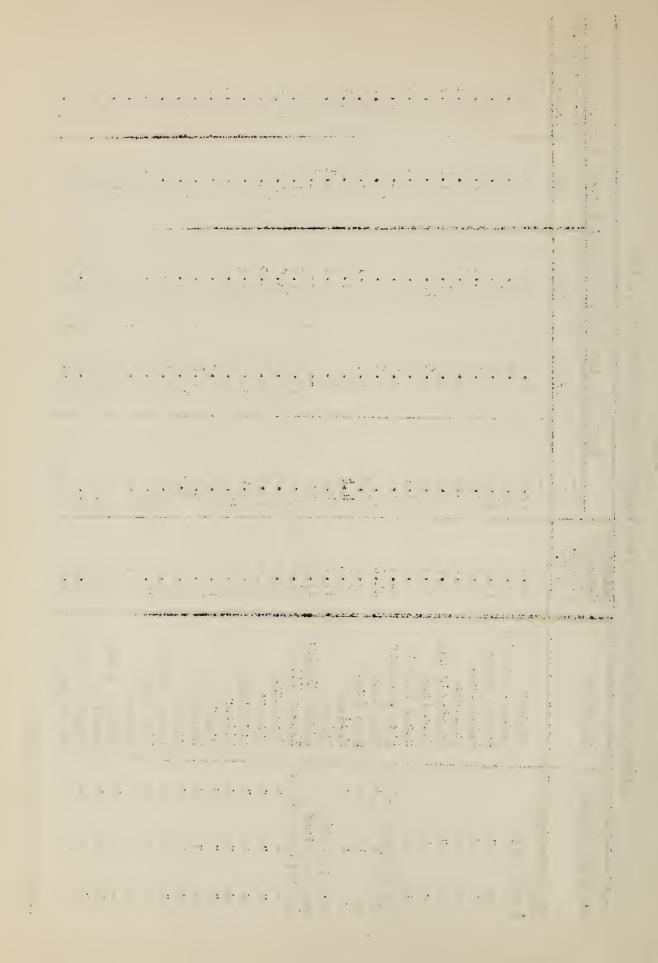
In Percent of Normal



STATUS OF RESERVOIR STORAGE PLATTE-ARKANSAS BASIN, February 1, 1952

BASIN AND STREAM	RESERVOIR	USABLE	THOUSANDS	ACRE	FEET IN STORA	STORAGE About Fe	February 1
		(Thous. A.F.)	1952	1951	1950	1949	10-year Avg.*
MISSOURI RIVER					`		
Poudre River	Windsor	18.6	12.9	0 0	0.0	2.5	ς <mark>α</mark>
=	Cache La Poudre	ン ・ ン	۵.٠	μ•α	7.0	2.3	W. 7
=	Fossil Creek	11.6	10.2	ν.	v	w V	6.1
=	Terry Lake	8.2	3.7	4.1	4.1	2.7	4.1
=	Halligan	7.9	7.0	0.0	0.0	9.0	1,1
=	Chamber's Lake	8,8	2.0	L,	1,8	1,1	2,2
=	Cobb Lake	34.3	7.0	o v	11.4	3.9	5.9
=	Black Hollow	8.0	3.7	0.7	5.7	2•3	. Y.
Big Thompson River	Lake Loveland	14.3	9.3	3.6	٠- -	1 ~	7.0
=	Boyd Lake	144.0	22.6	15.5	25.4	20.5	20.0
8.	Lone Tree	9.2	رم. مر	N N	7.	۳ ۳,۳	٠, ١,
=	Mariano	7.5	8.1	0.2	v,	0.2	1.7
St. Vrain River	Union	12.7	12.0	3.4	9.1	6,1	7.2
Boulder Creek	Barker Weadow	11.7	1		1	4.6	7-17
South Platte River	Eleven Mile	81.9	82.0	72.0	81.9	81.9	80.9
=======================================	Cheeseman	79.0	32.0	27.0	63.0	51.8	61.0
=	Marston	18.9	0.17	9.3	14.8	11.8	14.2
=======================================	Barr Lake	32.2	20.6	13.2	20.1	24.3	18,1
11 11	Milton	24.4	16.0	8•17	14.5	11.2	10.5
1	Standley	18,5	5.6	6*17	6.7	8.2	9.2
41	Marshall	10.3	7.0	r- 	1.2	0°3	1.9
	Antero	33.0	φ.	19.8	21.0	19.8	17.6
=======================================	Horse Creek	50.6	10.9	7.1	1	10.2	9.2
11 11	Riverside	57.5	52.2	34.7	44.7	28.1	6.01
=======================================	Empire	37.7	29.6	19.4	27.6	24.7	24.3
H H	Jackson Lake	35.4	29.8	27.4	31.5	21.5	27.5
= =	Prewitt	32.8	29.2	15.2	28.8	16.4	21.6
= = =	Point of Rocks	70.0	56.6	36.4	9.09	30.1	48.3
=======================================	Julesburg	28.2	19.6	20.1	20.1	20.4	20.2
,	_						

*Some for shorter periods



February 1	10-year Avg.* 1942-1951	1117.1	23.0	81.8	420.1	35.7	390.5	48.4	33.9 *		27.6	9.1 *	7.1	25.4	10.7	34.7	8,1		55.2 *	65.0	3.1		111.7	!	,	89 . 89	1		
IN STORAGE About 1	1949	1597.4	16.1	129.1	520.5	15.6	407.2	35.5	27.8		22.3	7.4	7.3	14.6	9.1	30,3	8.2	1	128.8	89.5	1.5		116.5	1		72.2	1		
FEET	1950	1679.0	25.3	155.1	647.2	45.9	780.0	45.2	43.9		21.9	6.3	6.7	5.7	7.3	29.8	4.5	18.9	149.6	9.89	9.0		61.3	1		113.6	1		
THOUSANDS ACRE	1951	1783.0	29.6	170.6	642.0	36.8	771.8	7.7	36.0		10.5	1,8 8.41	0.3	0.0	0.0	0.0	2.3	34.2	74.0	1,7.8	₽ • 0	,	75.1	27.0		92.3	159.4	0	
T	1952	1885.0	31.4	158.8	724.1	23.5	8.169	58.8	52.0		22,1	1,6	1.6	0.0	0.0	8.9	0.0	29.7	40.3	24.2	9*0		72.1	120.0		,	285-7	61.7	
USABLE	(Thous. A.F.)	2180.0	8.09	190.0	1025.0	0.94	1045.5		70.4	1-Till spei	57.9	17.4	11.4	47.9	26.9	9.19	0.01	40.9	655.0	150.0	15.0	ilmon una	198.1	160.0		146.9	467.5	143.5	
RESERVOIR		Kingsley	Minatare	Algova	Seminoe	Guernsey	Pathfinder	Sutherland	Wheatland		Twin Lakes	Sugar Loaf	Clear Creek	Meredith	Horse Creek	Adobe Creek	Cucharas	Two Buttes	John Martin	Great Plains	Model		Belle Fourche	Angostura	Z	Green Mt.	Granby	Horsetooth	
BASIN AND STREAM		North Platte River	# #	11 61	21 41		=======================================	=======================================	Laramie River	ARKANSAS RIVE	Arkansas River	=	•	=		=	=======================================	-		#	Purgatoire River	CHEYENNE RIVER	Cheyenne River		COLORADO-BIG THOMPSON	Blue River	Colorado River	Poudre River	

*Some for shorter periods

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SUMMARY OF FEBRUARY 1 SNOW SURVEYS AND COMPARISON OF DATA

WITH THAT OF PREVIOUS YEARS BY WATERSHEDS

PLATTE-ARKANSAS DRAINAGE BASINS

	Suow					No. of	Snow	1952 Water Content	Content
	Depth	Snow W	ater Co	ntent in	Snow Water Content in Inches	courses	Density	in Percent of	it of
WATERSHEDS	1952				15 yr.	ui .	1952		
	Inches	1952	1951	1950	Avg.*	average	Percent	1951	15 yr. Avg.*
CHEYENNE RIVER									
Cheyenne River	28.1	7-1	2.6	2.0	L. 17	Н	25	273	355
-									
PLATTE RIVER									
Sweetwater		13.6	10.4	15.17	9.3	2	27	131	146
North Platte River	62.2	18,5	12,5	71.7	10.9	20	30	8.7	170
The District of the Control of the C		,-		7 0	2) 6	, ,) \
raramie niver	0.04	11.4	7.1.	0.	٠.	- Napr	ζ.	104 104	145
South Platte River**	32.1	2.2	6. 1	3.0	ر م ش	ന	24	126	197
Poudre River		10.7	8.6	6.2	6.9	9	28	126	155
Big Thompson River		16,1	13.5	0.6	9.8	2	28	119	165
St. Vrain River	32.0	9.7	9.2	8-17	6.2	æ	30	106	157
Boulder Creek		20.1	20.2	6.7	10.9	, _F -	33	100	186
בניינים מיים ני		7 0 1	3.1			۱ (\ r	1	700
crear creek		T0°0	74.7	٠. ٥	0,*	V	7	125	90%
GENTA SASMANDA	\. \.	100	l a			C	C	o l	100
AUMANOAD ILLVER	47.4	17.4	0.0	17.017	o o	X	2	150	t727
*Some for shorter periods	riods								

PRECIPITATION DATA

		Precipitation	Departure	Precipitation	Departure
WATERSHED	STATE	October 1 to	from		from
		January 31	Normal	January	Normal
		Inches	Inches	Inches	Inches
North Platte	Wyoming	4.91	+1.89	0.61	0. 25
South Platte	Colorado	70.4	+1.22	0.35	0.15
Arkansas	Colorado	3.76	◆ 0°03	0.71	90.0-

*Average selected high elevation stations.

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PLATTE-ARKANSAS RIVERS SNCW SURVEYS February 1, 1952

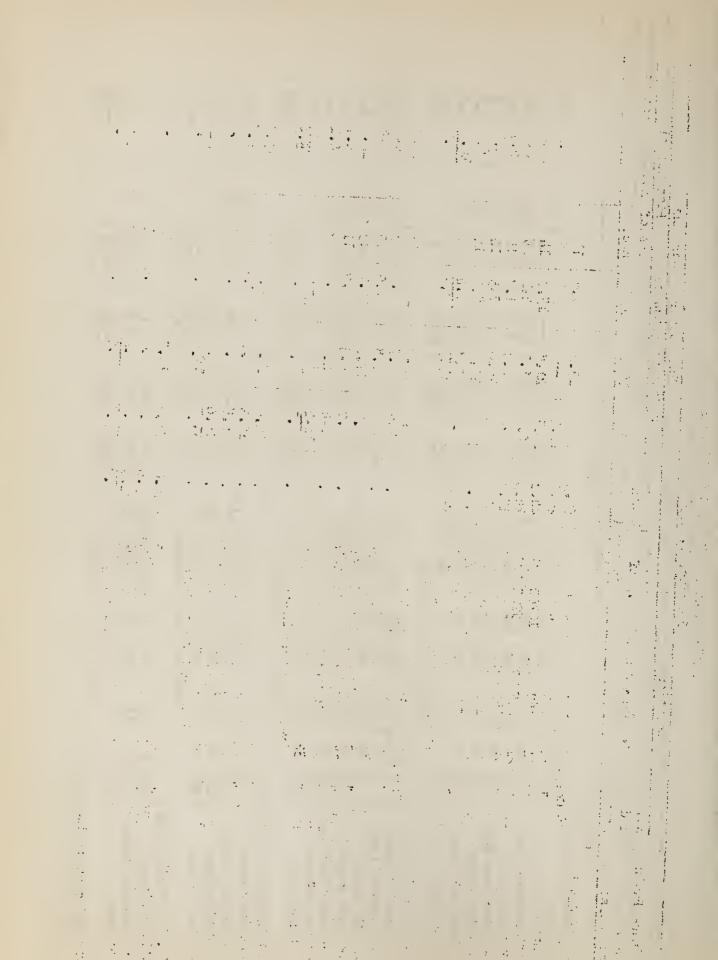
	- -	Past Record	Av. Water Con-	tent (Inches)			1.4			,	7.6	0.6	6.0		12.0	5.5	13.7	6.9	ł	7.7	10,1	18.4	16.2	11.6	9*9	11.1	10.8	1.7	1.7	1	10.9
+40000	oni cilicii o	Pa	Yrs. of	Rec.		α	0			(97	70			13	77	16	12	2	77	77	77	77	77	77	2	2	2	2	႕	
Corres Toponoment	יאבו דיים	(Inches)		1950		c	0.2			,	10.2	14.8	15.5		12.3	6.1	11.0	4.8	2.9	11.0	13.5	22.6	16,3	10.3	ぴ	14.1	7.7	3,3	7.7	i	11.7
Sport Co	NOTICE .	Content (1951		90	0.7			(10.2	10.6	10.4		14.0	5.7	20.9	6.8	3.7	7.3	10.9	19.3	17.4	14.5	о У	8,1	12.8	1.7	2.0	5,2	12.5
		Water (1952		۲ ،	Ţ.			ر د ا	17.0		13.6		18.5	11.5	23.2	16.7	6.7	16,1	20.2	30°5	23.5	14.9	8,9	16,0	12.3	1,5	2.9	6.9	18.4
	·	Snow		(Inches)	I RIVER	. a c	7000		: KIVER	ć.	0.01	17.0	51.0	,	62.0	42,2	82.1	56.7	27.8	55.2	68.7	95.9	77.4	52.0	34.5	51.4	144.0	20.0	17.7	56.6	62.2
1		-		Survey	MISSOURI	F/ C	1 7/7		PLA"I"E	-	7/7	7/7	lage		7	1/2	1/29	2	2	<u> </u>	1/28	न	7	7	<u>_</u>	1/29	$\overline{}$	7	$\frac{1}{1}$	1/30	ıge
	_		Elev.			777	7060			0	2000		Drainage		10300	9200	9300	9500	8500	8200	9000	9800	10200	9400	3400	0006	00176	8450	9000	8900	Drainage
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		Drainage Basin		Snow Course		CHEYENNE RIVER	Upper Speariisn			STEETWATER RIVER	Grannier Meadows	South Pass*		NO. PLATTE RIVER	Cameron Pass	Park View	Columbine Lodge	Willow Cr. Pass*	Northgate	Bottle Creek	Webber Spring	Old Battle	N.French Creek	N.Barrett Creek	Ryan Park	Spring Creek	Albany	La Bonte	Boxelder	Pearl	

*On adjacent drainage

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-7-PLATTE-ARKANSAS RIVERS SNOW SURVEYS February 1, 1952

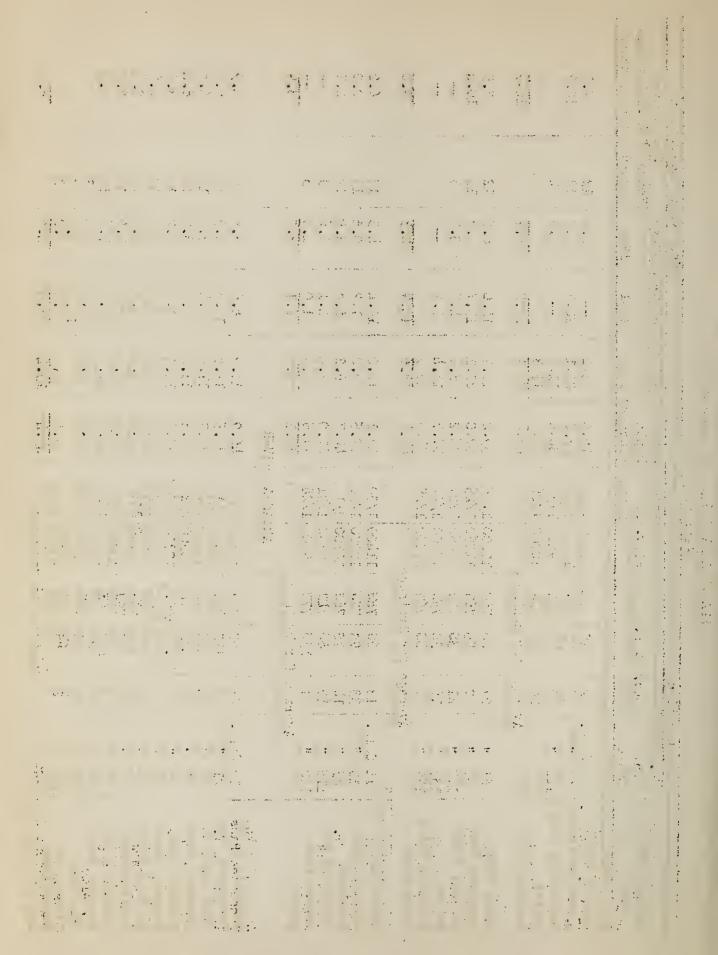
			7.4000		February	ary L,	1952					
			Location	E				- 1	- 1	Cover Measurement	surement	
Drainage Basin	No					Date	Snow	Water (Content ((Inches)	ŭ	Past Record
snow Course	and State	Sec。	Twp.	Range	Elev,	or Survey	Depth (Inched)	1952	1951	1950	Yrs,of Rec.	AveWater Content
					PI	PLATTE RIVER	IVER					
LARAMIE RIVER							1	,	1	(i	
Koach	J	νĵ	NO F	2		1/5./	50.5	0°77	13.2	8°6	디	10.3
			TON	9	0016	2/2	56,6	10,3	1	5,6	~	₩ 1.00
Brooklyn Lake	\geq		16N	781		2/1	64.3	2007	8 8	15.7	77	74.04
Fox Park	= :	21	13N	78W		2/1	24.5	0°9	6.7	۲ . %	15	Lla3
Pole Mtn. #2*	34	35	15N	72W	8700	1/28	17.7	4.2	2•3	1.7	15,	5.6
Libby Lodge	35 ==	29	16N	787		2/1	37.9	11,4	10,0	7.5	1/1	, cc
Hairpin Turn	36 "	24	16N	79W		2/1	0.01	11,2	11,5	8	i	889
Albany	*	18	N TT	78W		1/27	0.17	12.3	12,8	7.4	· ~	10.8
	^	Aver	Average fo	for drai	inage		0,01	11,01	0,11	200		2.9
POUDRE RIVER			 -						,	-		· ·
Cameron Pass	1 0010	_			10300	1/26	62,0	18,5	14.0	12,3	13	12.0
Chambers Lake	2 ==	9	NZ.	75W		1/26	34.7	2,9	6.7	7.7	11	891
Big South	# M	33				1/26	12,0	2°2	1.8	1.9	12	7.6
	= 29	ထ				2/3	72,5	20.0	17,8	10.7	13,	12.9
Hour Glass Lake	# 89	18	7N	734	9500	1/26	26.7	7.0	6,3	3.9	H	
Red Feather	128 "	56	TON	74W		2/3	27.3	8,4	8.17	79.7	~	1.9
Lost Lake	156 #	33		15/	9300	1/26	0,01	11.04	8,0		1	1
. !		Aver	Average for	r drai	nage		38.7	10.7	8.6	6.2		6.0
BIG THOMPSON RIVER	ER.											
Lake Irene*		Φ	SN N	754	10600	2/3	72.5	20.0	17.8	10.7	13	12.9
Hidden Valley	95 =	23	Z.	75W	9550		43.2	12,3	9.1	7.3	٠ ٦	6.7
Deer Ridge	115 "	13	Z.		9050	1/31	23.1	6,5	4.3	3.0	~	1.9
Longs Peak	1148 "	32	Νħ		10500		18.8	16.6	13,3		\	ì
		Ar	Average	for dr	drainage		57.8	16.1	13.5	0.6		8 6
ST. VRAIN RIVER				_)] }				
Wild Basin	47 "	77 77	3N	7.tw		1/31	148.0	16.2	15.7	8.4	777	7.7
Ward	137 "	7, 7	N N	738	9,000	2/2	23.0	ρ. ς. Υ. ο.	л о т	φ ς Μ ς	m 0	رن س درا هر
			Average			· `	32.0	9.7	9.2	188	J	2.50
*On adjacent drainage	ira ge))							!
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PLATTE-ARKANSAS RIVERS SNOW SURVEYS

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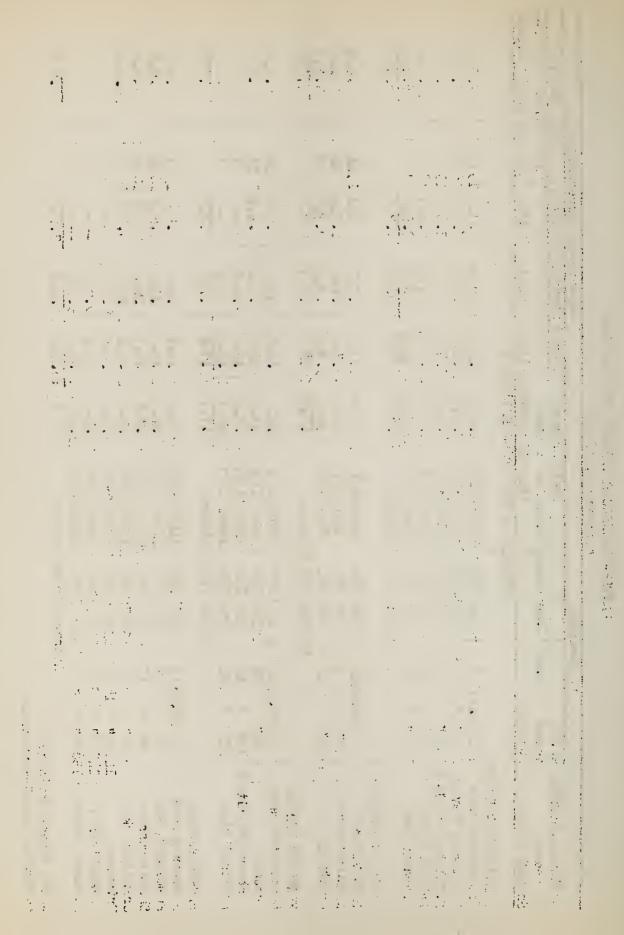
rements	t Record	of Av.Water Con- tent (Inches)	2.7		10,9	. 1	ر.) ر	1 1	1	0	2.0	`	6.2	οι 0-	<u> </u>	1	3.9			t•7) «	•	7,0	0°0	0 1	2.0	χ. Σ.	9.6			0.9	
Snow Cover Measurements	10.	Years of Record	ដដ	2		Ç	27.	م م					13	<u>n</u> :	3 8	ന്			7 '	9 -	14 7 c) T	0 0	77	77	12	16	1	m (ma		
Snow Cor	(Inches)	1950	4.2	4.9	6.7		0 0	, m	1	r F) 5		4.5	0°0	200	1.5	0.0	· Avenue	٦. د	√. √.	1 c	7,0	کړ. ک	7.5	3.4	2.0	8.0	2.6	φ •	~~~ ~~~	111	
	Content (1951	20.2	ł	20.2		1 1 1 2 2	- 1 - 1	9.2	0	7.4.7		10.4	راً <i>د</i>	0 r.	1.0	6.1			0 0	0.0	7.4	ر د د د	ئ ر	س ر•ر		15.2	13.2	α ~	O O O	8.5	
	Water C	1952	5.4 20.1	11,8	13,3 20,1	1 1	1./•1	8,9	16.4	15.9	0.01		12.0	0°0	7.7	5.9	7.7			11.9		201	٥٠,٢ ١,٠	12°T	15.8	9.9	16.9	21,1	15.2	15,2	13:1	
1//5	Snow	Depth (Inches)	18,6 63.0	38,5	63,0	; ; ;	5%0	35.2	57.3	54.9 10.0	200		43.1	12.5	21.0	21.5	32.1	RIVER		7°07	0°0 0°0 1°0	7 % 7	1.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7	37,0	46.6	25.9	58.4	7.69	57.8	40 6	15.1	
Luary 19	Date	ey	1/30	i ri	<u> </u>		1,725	ने न	<u>`</u>	7			7	7	27	1/28	•	ARKANSAS R		200	1/2	1	2		1	2	7	7	1/28	1 /20	i o	
1		Elev.	9400	9100	10000		10600	9650	10500	11200	ຍ .		11400	10000	10100	9200		AR	6	10200	10200	TOOOL	10500	10300	9300	9700	11,000	10500	10600	00111	drainag	
		Range	7 LW 7 3W	7 Livi	drainage		MO.	· · · · · · · · · · · · · · · · · · ·	754	7611	Drainage		784	MZ Z	7.6M	777	ainage		110	500	20 20 20	된 O	三,	105 ·W	20	81W	79W	E	80M	81M	for	
		Twp.	2S 1.N	SS	for d		S S	. S	38	St. 25	IOL D		88 S	98	7.8 6.8	138	for Drain		Ċ	SS	STT O	Not.	N817	37.2N	288	118	S	N67	158	200 800 800	Average	
Tocation		Sec.	26	2	26 A verage		27	2]	16		Average		73	33	77.	-	Average			7.7	77	177			22	23	2	16	31	ထင		
Tora		L	Colo.	±	A	\$	==	: =	=	=	A		Colo.	= :	= =	=	Ave				: :	=	=	=	=	=	±	=	2	==	j	
	No	and State	2002	122	162		— 67	771	137	159		品	177	75	118	120				16	7.	7	£3	72	7.7	78	4	92	119	121	drainage	
	Drainage Basin	٠.	BOULDER CREEK E.Pert. Moffat T.		Bould er Falls	CLEAR CREEK	Loveland Pass	Funire	Berthoud Falls	Clear Creek		SOUTH PLATTE RIVER	Hoosier Pass	Fairplay	Jefferson Cr.	Antero			ARKANSAS RI VER		Iwin Lakes I.	Marshall Pass	Poncha Creek	Whiskey Creek	La Veta Pass*	4-Mile Park	Fremont Pass	Monarch Pass	St. Elmo	Timberline	چد	

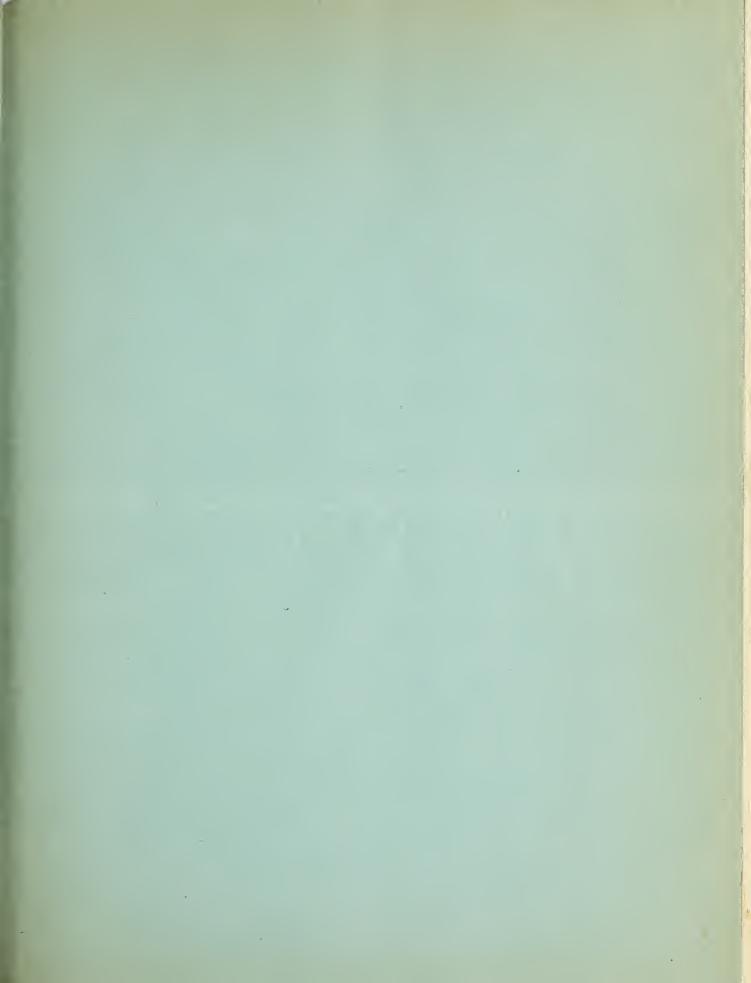


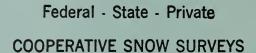
PLATTE-ARKANSAS RIVERS SNOW SURVEYS February 1, 1952

		Loca	Location					,	now Cove	Snow Cover Measurements	rements	
Drainage Basin	No.			1		Date	Snow	Water (Content (Inches)	Past	, Record
and	and	Sec.	Twp.	Range	Elev.	of	Depth				Yrs. of	Av. Water Con-
Snow Course	State				- 1	Survey	(Inches)	1952	1951	1949	Reco rd	tent (Inches)
				COLORADO -		G THOME	BIG THOMPSON PROJECT	ECT				
COLORADO RI VER**						,			•			
Cameron Pass*	1 00100	2	N9	161	10300	1/26	62.0	18.5	14.0	12.3	5	12.0
Phantom Valley	12 #	7	SN	751	(라0066	1/31	42.5	12.0	o Hi	у. Т.	76	ν, Φ
N. Inlet Grand L.	# †79	56	3	75.1	0006	2/3	140	12.4	6.7	٠ 8	E	5,3
Lake Irene	<u>59</u>	∞	K	751	10600	2/3	72.5	20.0	17.8	10.7	13	12.9
Grand Lake	127 "	36	马	151	8600	1/31	13.0	10.9	6.8	3.9	m	6. 4
		Av	Average	for	Drainage		52.8	14.8	11.0	7.2	-	8,5
WILLOW CREEK												
Park View*	7 Colo	1 24	SN.	78W	9200	2/1	12.2	11.5	5.7	6°J	77	:5°5
Willow Creek	62 # 1	7	N [†] N	787	9500 2/1	2/1	56.7	16.7	6. 8	8.4	12	6.9
Granby	" 211	<u> </u>	2N	777	8700	1/27	38°4	9.6	w N	3,3	m	4.3
		Av	Average	for D	Drainage		15.8	12.6	5.3	5.9		200
FRAZER RIVER												
Berthoud Pass	16 0010 35	35	28		9700	1/30	24.0	15.4	10.9	5,8	16	8
Arrow	11 69	34	13	25 配	0066	1/30	47.7	11.9	7.4	4.2	5	5.93
Berthoud Summit	138 "	20	33	75W		1/27	65.5	12.0	12.8	1	-	1
Frazer View	139 "	75	2S			1/27	148.7	15.2	8,2	1	٦	1
		Av	Average	for D	Drainage		47.7	13.6	9.1	2.0		7.0
HIVE RIVER					-							
Hoosier Pass	14 0010413	13	88	78W	00711	1/30	43.1	12.1	11.4	4.5	<u> </u>	6.2
Fremont Pass	# 6L	~	88	1971	11/00	1/29	58.4	16.9	15.2	8,6	16	ထ
Shrine Pass	= 96	15	89	797	10500	1/29	56.8	16,7	14.9	8,8	97	646
Grizzly Peak	n 16	7	58	76W	11250	1/25	62.0	20,1	15.7	8.6	2	10.4
Frisco	1/16 "	18	és	7811	9300	1/29	33.0	9.2	8°°6	1		
Snake River	1/7 "	0	55	76W	9700	1/25	11.0	10,1	9.2	1	Н	
Summit Ranch	158 "	- ω	S T		10000	-	45.6	12.6	5.8	1	Ч	
		4	Average	for	Drainage	a)	55.1	16.4	14.3	7.9		8
Man addagant due											-	

**Above Granby Reservoir







Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"